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ABSTRACT

The primary goal of this Minnesota evaluation project was to identify 20 promising prevention strategies and to evaluate the extent to which school districts utilize these prevention strategies. It was intended that this portrait of how school districts employ effective strategies will inform state policymakers and guide resource development and training. Four data collection methods were used in this project: a literature review, a survey of school principals (N=128), a survey completed by 63% chemical health coordinators, and interviews with chemical health coordinators in 62 of 64 school districts. A stratified random sample of 64 public school districts was drawn, with samples of elementary, middle school, and senior high schools. Key findings include: (1) a systematic review of the social science and health literature yields 26 promising prevention strategies which can be grouped into four areas: promising the values, knowledge and skills of students; promoting positive school climate; empowering parents; and mobilizing communities; (2) the two most widely-employed prevention strategies are self-esteem enhancement and teaching of interpersonal skills; (3) strategies designed to nurture values known to be associated with non-use tend to be underutilized; (4) school district coordinators of alcohol and other drug education advocate increased opportunities for the training of teachers; and (5) only a minority of school districts initiated and implemented efforts to evaluate the quality and impact of prevention programming. (ABL)

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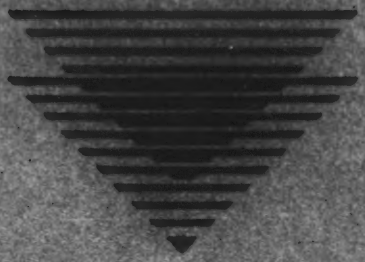
# PROMISING PREVENTION STRATEGIES

## A Look at What Works

February, 1992



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# PROMISING PREVENTION STRATEGIES
# A LOOK AT WHAT WORKS

## February, 1992

MINNESOTA DEPARTMENT OF EDUCATION
COMMUNITY EDUCATION/LEARNER SERVICES
PREVENTION AND RISK REDUCTION UNIT

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My Sincere thanks,

Barbara Yates, Supervisor
Prevention and Risk Reduction Unit
Minnesota Department of Education

In accordance with Minnesota Law 1990, Chapter 562, Article 4, Subdivision 4, the Minnesota Department of Education has performed this evaluation of promising prevention strategies. The law stipulates that "the Commissioner shall evaluate up to 20 drug abuse prevention strategies and shall coordinate the evaluation with the Office of Drug Policy and other entities conducting similar evaluations. The commissioner shall report the results of the evaluation to the legislature, districts, and social service agencies by February 15, 1992."

# Purposes and Methods

# Purposes and Methods

Efforts to prevent alcohol, tobacco and other drug use problems among Minnesota youth are not a new concern to public schools. The Minnesota Department of Education Bulletin No. C-9 published in 1934 outlines curriculum for teaching about "The Effects of Alcohol on the Human Body, Character and Society for Junior and Senior High School Periods." Despite the lengthy history of prevention efforts in Minnesota, the past decade has seen remarkable expansion of policies and programs. As recently as 1980, fewer than twenty-five percent of Minnesota school districts had policies in place outlining comprehensive efforts to respond to student alcohol and other drug use concerns. Today as a result of state law and the 1986 Federal Drug Free Schools and Communities Act Funding, all Minnesota schools have developed comprehensive alcohol and drug policies. In addition anti-drug and alcohol programming is offered in educational programs from early childhood education through twelfth grade and encouraged in all community education offerings as well. The programs and policies of the local education agencies are certified by the Minnesota Department of Education.

As a part of a long-range and comprehensive strategy to monitor student alcohol and other drug use, related problems, and risk factors, the Minnesota Department of Education developed the Minnesota Student Survey. The survey was first administered statewide in 1989 and will be repeated every three years with students in grades 6, 9, and 12. Results of the student survey will be useful in evaluating the effects of school-based and community-based prevention efforts.

The Minnesota State Legislature authorized, as a result of the 1990 State Drug Strategy, the Minnesota Department of Education to conduct an evaluation project to identify at least twenty promising alcohol and other drug use prevention strategies and measure their impact on the knowledge, attitudes and behavior of children and youth exposed to these strategies.

The project was designed to enable staff from Minnesota Institute of Public Health and Search Institute to work closely with local school, ECSU,and community staff to identify:

- key program components in use throughout the state,
- perceptions of the impact of key program components,
- evaluation efforts currently underway in Minnesota schools and communities,
- results from previous evaluation efforts, and
- perceptions of obstacles and barriers to evaluation efforts.

Much of this expansion in prevention programming has been triggered by a series of research studies showing that alcohol and other drug use has reached epidemic proportions among school-aged youth (see for example, The Minnesota Student Survey Report 1989, a statewide study conducted by the Minnesota Department of Education). Additionally, it has become increasingly clear that experimentation with alcohol and/or other drugs often emerges in grades 6 to 8. Accordingly, it has become commonplace for school districts—both in Minnesota and nationally—to initiate prevention programming in elementary and junior high grades.

## Purposes

Given the seriousness of the public health problems posed by early initiation into alcohol and other drug use and the allocation of significant financial and human resources to alter these trends, it becomes important to document how Minnesota school districts currently plan, implement, and coordinate prevention efforts. The primary goal of this evaluation project is to identify 20 promising prevention strategies and to evaluate the extent to which school districts utilize these prevention strategies. It is intended that this portrait of how well school districts employ effective strategies will inform state policymakers and

guide resource development and training. Ultimately, it is hoped the findings of this study will generate opportunities for school districts to both learn more about "what works" in prevention and acquire the kinds of training and resources necessary to move closer to the utilization of effective prevention strategies.

This project was designed to enable staff from the Institute of Public Health and Search Institute to work closely with local school, ECSU, and community leaders to:

- identify the extent to which promising, empirically-supported prevention strategies are in use in Minnesota school districts and communities,
- establish how strategy utilization varies by grade in school,
- document leaders' judgments about the effectiveness of these strategies, and
- identify obstacles and barriers to implementing prevention strategies.

## Methods

Four data collection procedures were used in this project. They are as follows:

Literature Review

An extensive review of the alcohol and other drug prevention literature was completed during the first three months of the project. From this review emerged a preliminary taxonomy of effective prevention strategies. This taxonomy was then fine-tuned via interaction with national prevention experts.

Survey of School Principals

The taxonomy of strategies was translated into a survey instrument and administered statewide to principals in a representative sample of Minnesota public schools.

Survey of Chemical Health Coordinators

To get a second perspective on school district prevention efforts, chemical health coordinators identified by the administration in each of the sampled school districts were administered the survey developed for principals.

Interview of Chemical Health Coordinators

In order to gather more in-depth information, interviews were conducted with the chemical health coordinators. Each coordinator was interviewed about the effectiveness of two of the twelve student strategies as well as one of the full sets of strategies in one of three clusters: schools, curriculum, or community. The strategies on which each coordinator was interviewed were determined by random assignment. Ultimately, at least ten interviews were conducted on each strategy. Interviews were conducted in person by Minnesota Institute of Public Health consultants specially trained for this project.

The survey instruments and interview protocols are available for examination through the Community Education/Learner Services Prevention and Risk Reduction Unit, Minnesota Department of Education.

Sampling Frame

With the assistance of the State Department of Education, a stratified, random sample of 64 public school districts was drawn. The stratification variable contained five U. S. Census town size categories (large cities, mid-size cities, urban fringe, towns, and rural). The proportional distribution of sampled districts was as follows:

| | |
|---|---|
| Large cities | 1 |
| Mid-size cities | 3 |
| Urban fringe | 20 |
| Towns | 20 |
| Rural | 20 |

Within each of the 64 districts, random samples of elementary, middle school, and senior high schools were drawn. The total school sample contained 187 schools.

Response Rates

Completed surveys were received from 128 of the total sample of 187 school principals. This represents a response rate of 68 percent. Face-to-face interviews were completed with chemical health coordinators in 62 of the 64 districts (for a response rate of 98 percent). Additionally, sixty-three percent of the coordinators returned completed surveys.

The principal survey data slightly underrepresents urban (i.e., Minneapolis and St. Paul) schools. No other geographic or district size bias was detected in the data set.

Validity

Much of this report depends on data gleaned from principals' knowledge of local strategy utilization and effectiveness. To check the validity of the strategy utilization reports, principal reports were compared with district coordinator reports and the Federal Drug and Alcohol Report and Certification forms filed by each school. Cross checking suggests that there is a high degree of correspondence among these three forms of data collection (principal survey, coordinator survey, federal report form).

# Key Findings

## Key Findings

- A systematic review of the social science and health literatures yields 26 promising prevention strategies, each with empirical evidence to justify their utilization in school districts and communities.

- The 26 strategies can be grouped into four areas: promoting the values, knowledge and skills of students; promoting positive school climate; empowering parents; and mobilizing communities.

- The two most widely-employed prevention strategies in Minnesota schools are self-esteem enhancement and the teaching of interpersonal skills.

- Strategies earmarked to promote the values, knowledge, and skills of students are utilized the most in grades 4 and 5 and the least in grades 11 and 12.

- Strategies devoted to building social competencies among students are used most in grades 7 and 8.

- Strategies designed to nurture values known to be associated with non-use tend to be underutilized.

- Although most schools offer parenting programs on prevention, these programs reach only a small minority of parents.

- Two techniques known to enhance the effects of school-based prevention programs are not widely utilized in Minnesota schools. These are offering boosters (i.e., short-term, follow-up reinforcements by prevention messages) in later school years to reinforce messages and concepts learned earlier, and using same-age students as leaders/teachers.

- School district coordinators of alcohol and other drug education advocate increased opportunities for the training of teachers.

- It is commonly recognized throughout the state that school-based prevention programs cannot have a maximum effect when adults in the community do not model restraint or responsibility. Efforts to change community norms, however, are often not present or are deemed ineffective.

- Only a minority of school districts initiate and implement efforts to evaluate the quality and impact of prevention programming.

# Definition and Description
# of
# 26 Promising Prevention Strategies

# Definition and Description of 26 Promising Prevention Strategies

## Overview

A systematic review of the evaluation literature coupled with interviews with national prevention experts led to the identification of 26 prevention strategies. For each, there is empirical support that the strategy either inhibits experimentation among school-aged youth, or reverses a pattern of frequent use. However, it should be recognized that this empirical literature is mixed in quality, with a noticeable lack of research in the area of comprehensive, community-based prevention efforts. Additionally, knowledge about the impact of these strategies is based more on cross-sectional studies than on longitudinal investigations. The taxonomy of 26 strategies reviewed in this chapter, then is based on the best available evidence, with that evidence somewhat limited in scope and quality.

The 26 strategies can be categorized into four different spheres of action. Twelve of the strategies focus on individual students and represent intentional efforts to alter their skills, knowledge, and values. Five strategies focus on school climate and programming priorities. Three are designed to build the prevention commitment and competencies of parents. The final five strategies focus on mobilizing multiple sectors of the community (e.g., business, government, voluntary agencies, religious institutions) to play a dynamic role in prevention.

Each of the 26 strategies also can be located along a continuum, with strategies toward the "specific" pole representing efforts clearly focused on alcohol and other drug use and those toward the "general" pole signaling efforts that enhance generic health or well-being. These more general strategies are capable of preventing not only chemical use but also other health-compromising choices (e.g., premature sexual expression, anti-social behavior).

The 26 strategies are listed in Figure 1. A glossary of terms can be found at the end of this chapter.

# Figure 1: 26 Promising Prevention Strategies

| Locus of Action | Strategies Specific to Alcohol and Other Drugs ⟷ Strategies Promoting General Health/ Well-Being |
|---|---|
| Promote the Skills, Knowledge, and Values of Individual Students | **Social Competencies**<br>[1] Teach refusal skills<br>[2] Teach pressure-resisting skills<br>[3] Teach decision-making and problem-solving skills<br>[4] Teach goal setting skills<br>[5] Teach interpersonal skills (listening, friendship-making, etc.)<br>**Information/Knowledge**<br>[6] Teach the health, social and legal consequences and risks of alcohol, tobacco and other drug use<br>**Personal Development**<br>[7] Enhance self-esteem<br>[8] Promote the personal understanding and sharing of feelings<br>[9] Promote identification and appreciation of one's skills and talents<br>**Positive Values**<br>[10] Promote devaluation of alcohol, tobacco, and other drug use and affirmation of being chemically-free<br>[11] Develop prosocial values<br>[12] Develop educational commitment and aspiration |

## Figure 1: 26 Promising Prevention Strategies (continued)

| Locus of Action | Strategies Specific to Alcohol and Other Drugs ⟷ Strategies Promoting General Health/ Well-Being |
|---|---|
| Promote Positive School Climate | [13] Adopt clear alcohol, tobacco, and other drug policies<br>[14] Develop normative expectation of non-use<br>[15] Develop caring community<br>[16] Promote involvement of students in co-curricular activities in school and/or community<br>[17] Involve students in youth service/service learning in school and/or community |
| Empower Parents | [18] Help parents develop a commitment to play a primary prevention role with their children<br>[19] Teach parents how to establish rules, standards, and effective discipline regarding chemical use<br>[20] Teach parents how to support, nurture, and affirm children |
| Mobilize Community | [21] Establish a community-based prevention task force<br>[22] Collect community data to monitor trends in alcohol and other drug use<br>[23] Pay attention to racial/ethnic factors in creating prevention strategies<br>[24] Use data to plan, evaluate, and modify prevention efforts<br>[25] Provide consistent and frequent messages discouraging use<br>[26] Place emphasis on changing adult alcohol, tobacco, and other drug use attitudes and behavior |

## Strategy Justification

Promoting the Skills, Knowledge, and Values of Individual Students

1. *Teach refusal skills*
2. *Teach pressure-resisting skills*
3. *Teach decision-making and problem-solving skills*
4. *Teach goal-setting skills*
5. *Teach interpersonal skills (listening, friendship-making, etc.)*

The latest genre of school-based prevention curricula places primary attention on teaching skills to circumvent the kinds of social pressures and influences known to encourage alcohol and other drug use. In addition to refusal skills designed to teach students how to say "no" to alcohol, tobacco and other drugs, other social skills commonly addressed are decision-making, goal-setting, and interpersonal skills. Each of these skills theoretically bolsters the pressure-resisting skills designed to teach students how to avoid alcohol, tobacco and other drug use.

A number of recent evaluation studies, rigorous in design and analysis, demonstrate the effectiveness of this approach. Initially, the social competencies approach was found to inhibit smoking (Flay et al., 1985; Perry et al., 1980). An elaborate evaluation of Project Alert in 30 California and Oregon schools found significant reductions in the use of both cigarettes and marijuana (Ellickson & Bell, 1991).

Despite these positive effects, these studies failed to find lasting effects on alcohol use. Several recent studies, however, have established that social competency curricula impact alcohol use under certain conditions. For example, Botvin and his colleagues (1990) report strong alcohol prevention effects one year after exposure to the curriculum when the program includes peer leaders and booster sessions. As is true with all prevention approaches, it seems unlikely that a single program or strategy used in isolation will be successful. The promise of social competency approaches lies in their ability to increase

desirable skills in individual students that can reduce high risk behavior if implemented in conjunction with other strategies.

6. *Teach the health, social, and legal consequences and risks of alcohol, tobacco, and other drug use*

Prevention research has clearly established that programs which depend solely or largely on the communication of information about health, social, and legal risks are ineffective (Jaker, 1989).

It is generally recognized, however, that information is a necessary component of school-based prevention as long as this approach is wedded to additional strategies. For example, most curricula touted as social competencies programs incorporate significant attention to building a knowledge base. It is likely, then, that information is a necessary though not sufficient condition for the prevention of alcohol and other drug use.

Additionally, it is often found in large sample survey studies that users and non-users differ in beliefs about the dangers of chemical use, suggesting that such knowledge plays a role in prevention (Kandel, Kessler, & Margulies, 1978). Increased perception of risk has also been identified as a factor explaining the recent trend toward reduced rates of illicit drug use by high school seniors, including marijuana, cocaine, stimulants, and sedatives (Johnston & O'Malley, 1989).

7. *Enhance self-esteem*
8. *Promote the personal understanding and sharing of feelings*
9. *Promote identification and appreciation of one's skills and talents*

Programs emphasizing personal development, which is often labeled the "affective" approach to prevention, have led to ambiguous results. As with the information/knowledge approach, it is likely that this approach has efficacy if it is combined with other strategies. Although a series of studies between 1975 and 1985 report conflicting, negligible, or nonexistent findings on the role of personal development approaches in preventing use

and/or reversing experimentation (Moskowitz, 1983), these difficulties have been demonstrated only when it is the sole modality utilized. A multivariate analysis of the effects of a commonly used prevention curriculum provides encouraging evidence that the combination of affective and social competencies approaches deters use of tobacco, marijuana, and stimulants (Swisher, Nesselroade, & Tatanish, 1985).

Equivocal research findings regarding alcohol and other drug use and self-esteem among adolescents may be due to a failure to examine gender differences. A detailed analysis of Minnesota Student Survey data revealed that although these were not significantly related for males, there was a strong relationship for females: the more serious the alcohol or other drug use problem, the lower the self-esteem (Harrison, 1990).

An important new longitudinal study suggests that frequent drug use "is a symptom, not a cause, of personal and social maladjustment" (Shedler & Block, 1990). This study will re-open the argument that psychological health (e.g., impulse control, social integration, purpose, ego strength) is a factor in deterring problem use (though not necessarily experimentation). Hence those "affective" strategies which effectively promote psychological health likely have a constructive role to play in minimizing certain problem use patterns. Support groups designed for high risk youth may hold particular promise.

10. *Promote devaluation of chemical use and affirmation of being chemically-free*
11. *Develop prosocial values*
12. *Develop educational commitment and aspiration*

There is mounting evidence that certain values are negatively correlated with chemical use. Though no study has experimentally investigated the effects of values education with treatment and control groups, a body of correlational studies strongly suggests that value development is a strategy worth pursuing.

Several studies suggest that personal sanctions against use deters alcohol and drug involvement (Kandel et al., 1978; Rooney & Wright, 1978; Smith & Fogg, 1978).

Other research shows that values promoting academic achievement (Jessor & Jessor, 1977; Benson, 1990) and prosocial values (e.g., compassion for people, concern for poverty and hunger) are negatively associated with a wide range of at-risk behavior, including alcohol, tobacco, and illicit drug use (Benson, 1990). Multiple regression analyses on a sample of 47,000 6th-12th grade students suggest that educational aspirations and prosocial values have a strong effect on alcohol and other drug use (Benson, 1990). Clearly, these strategies warrant increased attention by educators and researchers.

Promoting Positive School Climate

13. *Adopt clear alcohol, tobacco, and other drug policies*
14. *Develop normative expectations of non-use*
15. *Develop caring community*

The U. S. Department of Education (1989) has emphasized the important role that school policies and an expectation of non-use play in the prevention of alcohol and other drug use problems. It has also been suggested that formal school policies reflect school norms toward alcohol and other drug use and that these norms are correlated with rates of use (Baumrind, 1985).

Those students that perceive their school climate as caring are more likely to be considered thrivers and resilient to a variety of at-risk behaviors (Benson, 1990). A recent reexamination of the 1989 Minnesota Student Survey also shows that a caring school climate is associated with lower alcohol and other drug use.* Educators are also becoming aware that restrictive policies in combination with other prevention strategies can lead to many perceived benefits including establishment of normative expectations of non-use (Pentz, 1989, Griffin, 1990).

16. *Promote involvement of students in co-curricular activities in school and/or community*

17. *Involve students in youth service/service learning in school and/or community*

There is a tendency for non-users of alcohol, tobacco and other drugs to report more involvement in structured youth activities than users (Kumpfer & DeMarsh, 1986). In the 1983 Minnesota Survey on Drug Use and Drug-Related Attitudes (Benson et. al., 1983), participation in school co-curricular clubs or organizations was negatively related to alcohol, cigarette, and marijuana use. Participation on school athletic teams was connected only to less use of tobacco, however.

Other recent research shows that youth involved in community organizations and those involved in community service projects were also less likely to report at-risk behavior, including alcohol, tobacco, and illicit drug use (Benson, 1990). There is some evidence that structured youth activities have particular power in preventing use among high risk youth (Tobler, 1986).

These two strategies, when implemented, have the power to improve school climate. Both speak in particular to the perception of the school community as caring.

Empowering Parents

18. *Help parents develop a commitment to play a primary prevention role with their children*
19. *Teach parents how to establish rules, standards, and effective discipline regarding chemical use*
20. *Teach parents how to support, nurture, and affirm children*

It is commonly postulated that parenting behavior and family dynamics play a major role in prevention. A series of studies support this argument. Several document the role of parent-child communication, parental standards, and discipline (Baumrind, 1983; Kandel et al., 1986; Kumpfer, 1989). Kumpfer (1989) also reports positive prevention results for an experimental study of the impact of a program designed to strengthen family dynamics.

a stronger influence on younger children and appears to decrease dramatically as the child grows older.

The 1989 Minnesota Student Survey reported that parental communication, discipline and attitudes toward teenage drinking and other drug use were significantly correlated with the students' alcohol and other drug use behaviors. Nonusers were more likely to discuss problems with their parents and cite them as important sources of information. They also saw their parents' rules as more fair and their discipline as more consistent than did users. Nonusers were more aware of their parents' attitudes about teenage drinking and they were more likely to believe that their parents would be very upset if they used alcohol or other drugs.

Mobilizing the Community

21. *Establish a community-based prevention task force*
22. *Collect community data to monitor trends in alcohol and other drug use*
23. *Pay attention to racial/ethnic factors in creating prevention strategies*
24. *Use data to plan, evaluate, and modify prevention efforts*
25. *Provide consistent and frequent messages discouraging use*
26. *Place emphasis on changing adult alcohol, tobacco, and other drug use attitudes and behavior*

Current approaches to prevention emphasize the importance of involvement by multiple sectors of the community in prevention programming. The various perspectives of different sectors of a community can help identify needs, prioritize strategies for change and establish criteria for effectiveness (Goodstadt & Mitchell, 1990). For example, police involvement in elementary school prevention efforts is an increasingly popular and promising strategy (Ringwalt et al., 1990).

In addition, many communities are designing programs that are sensitive to cultural/ethnic uniqueness in order to increase the likelihood of effectiveness (Bobo et al., 1988).

Widespread support from a variety of sectors in the community increases the likelihood of acceptance of a prevention program. Careful planning and implementation also allow a balance to occur between community-based programming and research integrity (Pentz, et al., 1986). It has also been demonstrated that the use of local data to identify baseline behavior and design specific program strategies is helpful in gaining ownership for program efforts and measuring impact of prevention programs (OSAP, 1989).

A successful school-based program will have little carryover unless community norms support the principles presented by the programs (Pentz et al., 1989). Informal social controls that exist in each community lead to norms about alcohol and other drug use that are likely to influence young people in those communities (Coate & Grouman, 1985; Maloff et al., 1979). Current efforts to influence public policy such as placement of health warnings on alcoholic beverage containers are examples of efforts to change community norms (Wallack, 1990).

Community-based prevention strategies are very promising examples of efforts to create an environment for young people that discourages unhealthy, high risk or illegal behavior, and encourages health-enhancing choices.

Additional Strategies

In creating a comprehensive state or local community plan for prevention, additional strategies beyond these 26 may be warranted. Listed here are two strategies which hold promise, pending additional research.

*1. Reducing anti-social behavior.* In the Minnesota Student Survey a propensity for risk-taking and rule-breaking was found to be associated with increased probability of alcohol and other drug use and problem use. More males than females reported that they used alcohol and other drugs precisely because they are illegal (Minnesota Department of Education, 1989). Multiple regression analyses found that antisocial behaviors (vandalism,

fighting, shoplifting) accounted for the greatest proportion of variance in alcohol and other drug use problems among adolescents, regardless of age or gender (Harrison, 1990).

2. *Reduce family violence and related dysfunctions*. The Minnesota Student Survey also found that serious family problems were among the strongest predictors of alcohol and other drug use problems among adolescents, particularly younger students. Family violence, sexual abuse, and parental alcohol or drug use were all highly correlated with early initiation into use by students, and more serious use problems (Minnesota Department of Education, 1989).

## Glossary of Terms

| Prevention Strategies | Definition |
|---|---|
| 1. Teaching refusal skills | Teaching students how to say "no" when offered alcohol, tobacco, and other drugs. Includes role playing |
| 2. Teaching pressure-resisting skills | Teaching students how to avoid those social situations which can create pressure or encouragement to use alcohol, tobacco, and other drugs |
| 3. Teaching decision-making or problem-solving skills | Teaching students cognitive skills necessary for making critical judgments, sorting out options, evaluating choices, or applying values to practical situations |
| 4. Teaching goal-setting skills | Teaching students how to set personal goals about school, friends, higher education, or career. Teaching students strategies for meeting goals |
| 5. Teaching interpersonal skills | Teaching students how to relate well to other people, including friendship-making, listening, and communication skills |
| 6. Teaching knowledge | Teaching students about the health, social, and legal risks of using alcohol, tobacco, and other drugs |
| 7. Enhancing self-esteem | Efforts to help children accept personal interests and characteristics. Helping children feel worthwhile and valued as individuals |
| 8. Teaching how to understand and share one's feelings | Helping students name and acknowledge feelings and talk about the impact of one's feelings on behavior |
| 9. Helping identify skills and talents | Helping students discuss "what is special about me" in terms of abilities, interests, capacities, and skills |
| 10. Developing values to be chemically-free | Helping students place personal value on not using alcohol, tobacco, and other drugs |
| 11. Developing prosocial values | Nurturing in students a compassion or concern for the welfare of other people |
| 12. Developing educational commitment and aspirations | Helping students to care about doing well in school; helping students work up to their abilities; increasing achievement motivation; preventing school drop-out; teaching the importance of education |
| 13. Co-curricular activities | Includes sports, band, orchestra, choral music, clubs and organizations |
| 14. Youth service | Includes voluntary or required programs to involve students as helping people in the community; also called service learning |
| 17. Caring community | School purposely teaches teachers, staff, and students how to show care and concern for each other |
| 22. Parent prevention skills | Includes how to communicate with children about alcohol and other drugs; rule-setting; modelling; effective discipline |
| 23. Monitoring children | Teaching parents how to prevent their children from being exposed to peers or settings which favor alcohol, tobacco, and other drug use. Includes efforts to help families connect to other families in pledging that alcohol, tobacco, and other drugs will not be tolerated in homes or at parties |
| 29. Prevention task force | To mark "yes," a majority of these sectors should be represented: school administrators, youth, law enforcement, business, religious institutions, service organizations, media |

# The Utilization and Perceived Impact of 26 Promising Prevention Strategies in Minnesota Public Schools and Communities

# The Utilization and Perceived Impact of 26 Promising Prevention Strategies in Minnesota Public Schools and Communities

This chapter integrates the statewide survey of principals and interviews with school district chemical education coordinators to (a) estimate the degree to which the 26 strategies are utilized in Minnesota communities; and (b) document the perceived impact of the strategies on public school students.

## Strategies 1 - 12: Promoting Skills, Values, and Knowledge

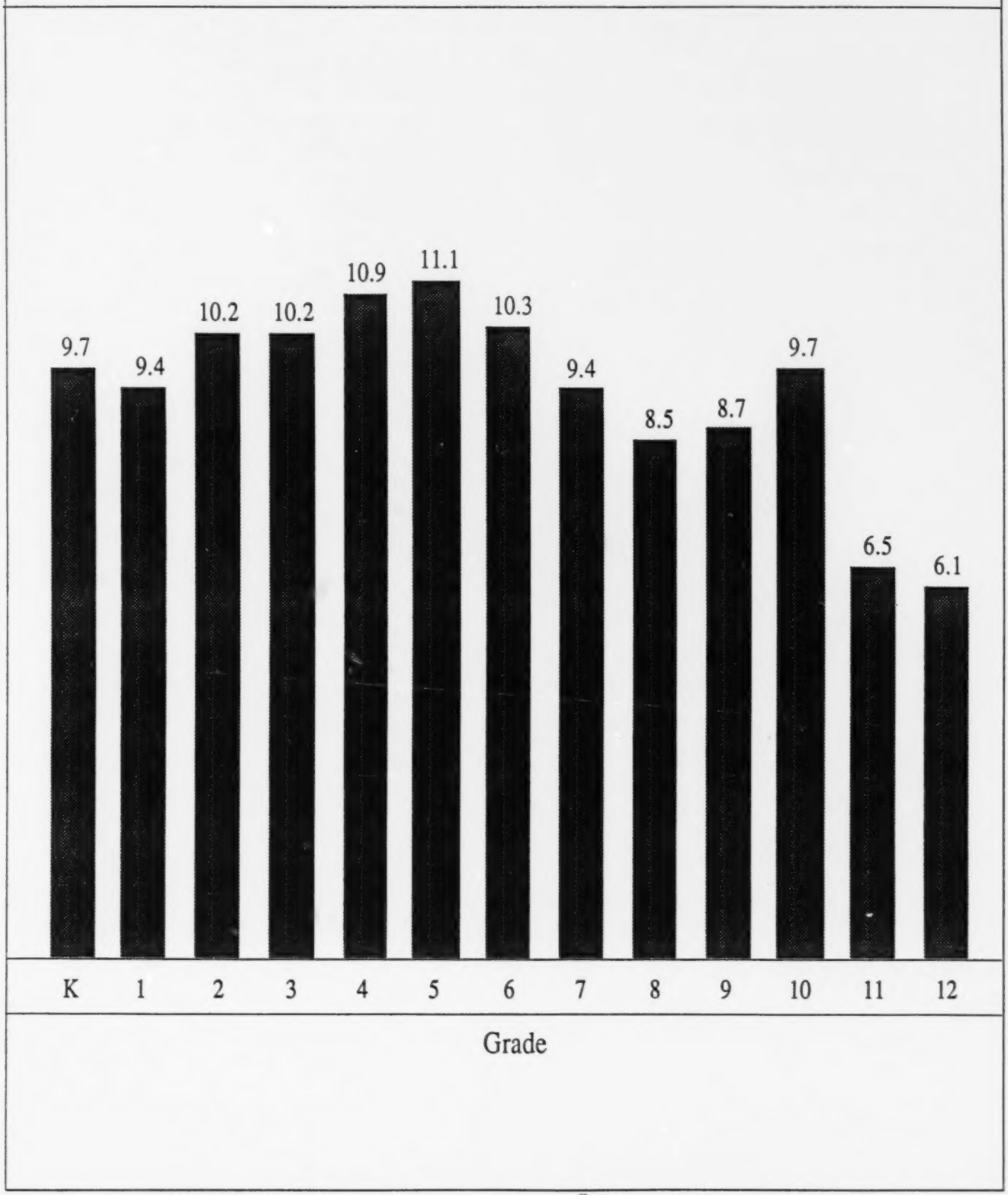
Figure 2 shows the percentage of public schools employing each of the 12 strategies in kindergarten through grade 12, based on principals' reports. Each of the strategies is commonplace in Minnesota schools. As shown in Figure 3, the average number of the 12 strategies used is highest in grades 4 (10.9) and 5 (11.1). Strategy utilization tends to decline after grade 6 with a sharp increase during grade 10. This latter phenomenon is likely due to the enrollment of high school sophomores in required health education classes. The lowest utilization of the 12 strategies occurs in grades 11 and 12.

The pattern revealed in Figure 3 likely represents a rather recent shift in the timing of alcohol and other drug education. Prior to the 1980's, most prevention efforts were concentrated in the high school years. In the 1980's, prevention energy has shifted to the elementary and junior high years, presumably reflecting a desire to prevent use before experimentation begins, and/or to inhibit the progression from early experimentation to more regular use. While this new focus on younger youth is certainly laudable, it may be shortsighted to downplay the use of the strategies in grade 11 and 12, a phase of adolescence that presents new challenges, pressures, and opportunities to use. It is the

## Figure 2: Percent of Minnesota Schools Utilizing 12 Student Strategies, by Grade

| Strategy | Grade | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1. Teaching refusal skills | 82 | 81 | 86 | 88 | 94 | 97 | 88 | 87 | 75 | 69 | 78 | 44 | 44 |
| 2. Teaching pressure-resisting skills | 76 | 78 | 81 | 82 | 94 | 97 | 93 | 87 | 79 | 71 | 84 | 51 | 44 |
| 3. Teaching decision-making and/or problem-solving skills | 76 | 76 | 86 | 79 | 90 | 95 | 88 | 87 | 79 | 79 | 89 | 63 | 63 |
| 4. Teaching goal-setting skills | 65 | 65 | 73 | 74 | 87 | 82 | 81 | 74 | 71 | 77 | 76 | 51 | 49 |
| 5. Teaching interpersonal skills | 91 | 81 | 92 | 88 | 90 | 95 | 81 | 72 | 73 | 71 | 87 | 63 | 58 |
| 6. Teaching knowledge about the risks of alcohol, tobacco, and other drug use | 76 | 78 | 86 | 91 | 94 | 100 | 91 | 87 | 71 | 75 | 89 | 51 | 53 |
| 7. Enhancing self-esteem | 88 | 81 | 84 | 82 | 90 | 92 | 86 | 83 | 73 | 77 | 78 | 51 | 46 |
| 8. Teaching how to understand and share one's feelings | 91 | 86 | 89 | 88 | 94 | 97 | 91 | 74 | 71 | 67 | 80 | 56 | 53 |
| 9. Helping students identify their skills, talents, and special abilities | 85 | 81 | 89 | 88 | 90 | 87 | 84 | 72 | 56 | 73 | 73 | 58 | 53 |
| 10. Developing a personal value on being chemically free | 74 | 70 | 86 | 91 | 94 | 95 | 88 | 80 | 71 | 67 | 84 | 53 | 47 |
| 11. Developing prosocial or caring values | 88 | 86 | 89 | 85 | 87 | 87 | 86 | 72 | 69 | 73 | 76 | 53 | 49 |
| 12. Developing educational commitment and aspiration | 76 | 78 | 78 | 85 | 84 | 84 | 77 | 63 | 65 | 69 | 73 | 58 | 53 |

## Figure 3: Average Number of 12 Student Strategies Utilized in Minnesota Schools, by Grade



judgment of the project team that the strategies are as necessary during grades 11 and 12 as they are during the earlier grades.

The survey also required principals to estimate the number of hours each strategy is used, on an annual basis. Many principals found this task perplexing and problematic. A common refrain was "I know what curricula we use in a particular grade, but I'm not sure which strategies the curriculum employs." The frequent occurrence of this kind of comment, in combination with the interviews of coordinators, provide considerable evidence that prevention in Minnesota schools tends to be driven more by curricula than by prevention strategies. That is, it appears that the dominant way schools "do" prevention programming is to adopt commercially-marketed curricula. A more effective methodology would be to first name goals, then identify optimal grade-by-grade strategies, and finally choose or develop curricula which embody the preferred strategies.

Although principals found it difficult to estimate hours devoted to specific strategies, several important generalizations can be made. Figure 4 shows, for each grade, the strategies which are used, on the average, more than five hours a year.

Key findings, based on this analysis of where strategies are used at least 6 hours annually, are as follows:

- The two most widely used strategies in Minnesota schools are "teaching interpersonal skills" and "enhancing self-esteem." Both of these represent general prevention strategies which are intended to promote overall student well-being. The most commonly used strategy that specifically focuses on alcohol and other drug prevention is "teaching knowledge about the risks of alcohol, tobacco, and other drug use."
- In grades K-5, the primary focus is on personal development or affective education, as symbolized by "enhancing self-esteem," "teaching how to understand and share one's feelings," and "helping students identify their skills, talents, and special abilities."

## Figure 4: Strategies Utilized 6 Hours or More Per Year, by Grade
### (X denotes strategies which are used, on the average, 6 or more hours per year)

| Prevention Strategies | Grade | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1. Teaching refusal skills | | | | | | | | X | X | | | | |
| 2. Teaching pressure-resisting skills | | | | | | | | X | X | | | | |
| 3. Teaching decision-making and/or problem-solving skills | | | | | | | | X | | | X | | |
| 4. Teaching goal-setting skills | | | | | | | | | | | | | |
| 5. Teaching interpersonal skills | X | X | X | X | X | X | X | X | X | | | | |
| 6. Teaching knowledge about the risks of alcohol, tobacco, and other drug use | | | | | X | X | X | X | X | | X | | |
| 7. Enhancing self-esteem | X | X | X | X | X | X | X | X | X | | | | |
| 8. Teaching how to understand and share one's feelings | X | X | X | X | X | X | | | | | | | |
| 9. Helping students identify their skills, talents, and special abilities | X | X | X | X | | X | | | | | | | |
| 10. Developing a personal value on being chemically free | | | | | | | | | | | | | |
| 11. Developing prosocial or caring values | X | X | X | | | | | X | | | | | |
| 12. Developing educational commitment and aspiration | X | | | | | | | | | | | | |

- 7 and 8 are the only grades where there is a concerted effort to use multiple social competency-building strategies (e.g., teaching refusal skills).
- The use of strategies in a concentrated way greatly subsides after grade 8, with only two strategies where high schools average 6 hours or more annually. Both of these occur in grade 10 (decision-making and knowledge about risks).
- The three value-development strategies (value on being chemically free, prosocial values, and educational commitment)) appear to be particularly underutilized, except in the early primary grades.

One of the issues that ought to be addressed in the near future is whether the configuration depicted in Figure 4 represents what is meant in state guidelines by "age-appropriate" alcohol and other drug education. To our knowledge, no one has yet created a developmentally-based model of how these 12 strategies ought to be utilized in each grade from kindergarten to 12*. Key issues include whether social competency training ought to be concentrated, as it now is, only in the junior high years, and what configuration of strategies needs to be utilized in grades 9-12, where currently there seems to be little focused prevention effort.

Additional findings about each of the 12 student strategies, based both on principal surveys and coordinator interviews, are summarized here.

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* A recent (1991) scope and sequence paper (Minnesota School Health Education 110 Program) prepared by the Curriculum Services Division, Minnesota Department of Education, represents an important step in naming age-appropriate strategies.

## Strategy #1 Teaching Refusal Skills

*Teaching students how to say "no" when offered alcohol, tobacco, and other drugs. Includes role playing.*

A majority of schools in this study report using refusal skills training about how to say "no," as a component of K-12 prevention efforts (see Figure 2). This strategy receives the greatest focus (6 hours or more per year) at the 7th and 8th grade levels and is most often integrated into a broader subject area, usually health education. Fewer than half of the chemical health coordinators interviewed about refusal skills report that this strategy is evaluated for effectiveness. However, most coordinators believe that the strategy is helpful and provides students with practical skills. A clear difference of opinion regarding adequacy of the amount of time devoted to this strategy exists among coordinators. Approximately one-third reported that the time spent in this area was inadequate, usually because there are too many demands within the curriculum. Another one-third reported the time was adequate if reinforcing booster sessions occurred at older age levels.

Coordinators further report that this strategy is generally supported by administration, other teachers and parents. However, in some districts lack of parental involvement in completing "take home" assignments is noted as a problem. This concern about parental involvement and support will surface in relation to a number of strategies examined in this study. Coordinators report that refusal skills efforts are about average in terms of costs for benefits.

### Strategy #2 Teaching Pressure-Resisting Skills

*Teaching students how to avoid those social situations that can create pressure or encouragement to use alcohol, tobacco, and other drugs.*

A majority of schools in this study report teaching pressure resisting skills designed to help students avoid social situations that create pressure to use alcohol, tobacco or other drugs. These skills are most often taught at the 7th and 8th grade levels and are most often integrated into a broader subject area such as health, social studies, or home economics. These skills are also included in some 10th grade subject areas including drivers education. Most coordinators report that this strategy is not evaluated for effectiveness, but all believe that it is likely to be helpful in preventing alcohol, tobacco and other drug use problems. Often, pressure-resisting skills are included as part of a commercially available program such as the Minnesota Smoking Prevention Program (MSPP), Skills for Adolescence (Quest), and Values & Choices. Ninety percent of the coordinators interviewed report that this strategy is reinforced by booster efforts at later grade levels.

Coordinators further report considerable support for this strategy from administrators, faculty and parents. This strategy is believed to be slightly better than average in terms of benefit for costs involved.

### Strategy #3 Teaching Decision-Making and/or Problem-Solving Skills

*Teaching students cognitive skills necessary for making critical judgments, sorting out opinions, evaluating choices, or applying values to practical situations.*

Virtually all schools surveyed teach decision-making and problem-solving skills throughout the K-12 grades. Most often these skills are integrated into broader subject areas including health, social studies, language, family life and home economics. These skills are also often taught as part of a commercially available prevention curriculum such

as Skills for Adolescence, (Quest), Here's Looking at You 2000, or Project Charlie. The strategy receives its most focused attention in grades 7 and 10 (see Figure 4). Coordinators perceive that most key elements are included by teachers when implementing these programs. Approximately 50 percent of the coordinators interviewed report that their district evaluates this strategy for effectiveness. However, the most common evaluation method employed has been the Minnesota Student Survey which has been administered only once and thus provides only baseline pretest data at this time. All coordinators interviewed believe this strategy to be helpful.

Coordinators further report that most teachers are trained to teach these skills, but nearly half felt that some teachers would benefit from additional training to increase confidence and skill in implementing programs. This strategy is supported by administrators, faculty and parents. Approximately 20 percent of district coordinators report that a minority of parents are opposed to teaching decision-making or problem-solving skills out of fear that it allows students to make decisions that conflict with parental values. However, there is to date no knowledge that teaching decision-making skills actually results in such conflict. This strategy is perceived to offer a better cost/benefit ratio than most strategies.

### Strategy #4 Teaching Goal-Setting Skills

*Teaching students how to set personal goals about school, friends, higher education, or career. Teaching students strategies for meeting goals.*

Teaching goal-setting skills is reported by almost all coordinators as likely to help prevent alcohol, tobacco and/or other drug use. These skills are taught consistently but infrequently throughout grades K-12. In most districts, goal-setting skills are integrated into a variety of subject areas. Approximately 20 percent of coordinators report that these skills are integrated into all subject areas. A majority of coordinators report that goal-

setting skills are evaluated by a variety of methods including goal-setting assessment groups, comparisons of GPA over time, survey of all students, classroom testing and individual student conferences. As is true of the other social competency strategies reviewed, goal-setting is most often integrated into broader subject areas and is included in commercially available curriculum. Coordinators report that teachers include some to most key elements of these programs when implementing this strategy. Co-curricular programs such as 4-H and Junior Achievement also offer services to learners to help them master goal-setting skills.

Adequacy of specific training to teach goal-setting skills was questioned by half the coordinators interviewed. Some report that since goal-setting was not a specific component of the curriculum no training had been offered to teachers. Others report that teachers appreciate additional training. One exception to this was reported by a coordinator who believes teachers resent extra training.

Coordinators perceive strong administrative support and quite a bit of support from faculty and parents to implement this strategy. Goal-setting skills are perceived to have a better cost/benefit ratio than most strategies.

### Strategy #5 Teaching Interpersonal Skills

*Teaching students how to relate well to other people, including friendship making, listening, and communication skills*

Teaching interpersonal skills is one of the strategies used most often by schools in Minnesota (Figure 4). It is emphasized throughout the elementary grades, and although it is usually not evaluated for effectiveness, it is perceived to be very important and likely to help prevent alcohol, tobacco and/or other drug use problems. Interpersonal skills instruction is included in almost every subject area and approximately half the coordinators interviewed about this strategy report that it is integrated into a commercially available

prevention curriculum. Teachers tend to include only some key elements of a curriculum plan when implementing this strategy. Since this skill is integrated so widely into the curriculum and reinforced at so many grade levels, it is difficult to isolate any effect this strategy might have on the prevention of alcohol, tobacco and other drug use.

A majority of coordinators interviewed report that teachers are trained to implement this strategy, but almost half feel that training is not adequate and that additional high quality training would be helpful.

Efforts to teach interpersonal skills are generally supported by administrators, faculty and parents. Coordinators believe that this strategy has a better than average cost/benefit ratio. In some cases, that belief results from the fact that these skills can be taught without specialized materials.

### Strategy #6 Teaching Knowledge about the Risks of Alcohol, Tobacco, and Other Drug Use

*Focuses on building knowledge about health risks and social and legal consequences of use*

The 1986 Federal Drug Free Schools and Communities Act has resulted in numerous changes in school alcohol and drug programs. Each school in Minnesota now must not only have policies in place but must also offer drug and alcohol abuse education from early childhood education to twelfth grade. These local efforts are certified by the Minnesota Department of Education. In Minnesota schools, specific instruction regarding the risks of alcohol, tobacco, and other drugs is most often occurring in the middle school years, grades 4-8. This corresponds to the ages at which many young people first experiment with alcohol and/or tobacco use. All coordinators interviewed believe that this strategy will help prevent alcohol, tobacco, and other drug use problems, yet a majority recognize that it is only one component of prevention. A concern regarding parental support for this strategy was identified by nearly 25 percent of coordinators interviewed. This concern

probably reflects a fear that knowledge-building may create a harmful kind of curiosity, or a worry that this knowledge will empower students to offer critique of parental alcohol, tobacco, or other drug use.

Approximately half the coordinators interviewed on this strategy report that it is evaluated for effectiveness, with approximately half of those district coordinators anticipating replication of the Minnesota Student Survey to provide post test data.

Administrative and faculty support for this strategy were consistently reported as quite strong, with only one exception. Parental support varied widely among districts. Fifteen percent of the coordinators interviewed reported very little parental support while 54 percent reported quite a bit to very much support. This diversity in opinion seems to reflect varied community norms and attitudes about alcohol, tobacco, and other drug use as reported by the coordinators. Overall, teaching about risks of use is believed to be better than average in terms of benefits for costs involved.

### Strategy #7 Self-esteem Enhancement

> *Efforts to help children identify personal talents and skills. Helping children feel worthwhile and valued as individuals.*

As is true of efforts to teach interpersonal skills, self-esteem enhancement is woven into almost every elementary school classroom and subject. Efforts to improve self-esteem are evident throughout the junior and senior high years but decline markedly. Most coordinators believe these efforts will help prevent alcohol, tobacco, and other drug use problems, although one observer cautioned that many students who receive consistent affirmation from teachers and peers also experience problems with alcohol, tobacco and/or other drug use.

A majority of coordinators interviewed report that this strategy is evaluated primarily by teacher observation. Administrative support is very strong, with faculty and parents

supporting teachers quite a bit. A small minority of parents oppose this strategy in approximately one-third of the districts included in interviews on this strategy. This strategy is considered to be better than average in terms of benefits for costs.

### Strategy #8 Teaching How to Understand and Share One's Feelings

*Helping students name and acknowledge feelings and talk about the impact of one's feelings on behavior.*

This strategy is commonly used in Minnesota schools and emphasized at grades K-5 (see Figure 4). Use of this strategy is minimal in grades 11-12. Since adolescence is a period of life in which needs for self-understanding are powerful and commonplace, it is interesting to note the limited attention provided to this strategy in grades 11 and 12.

All coordinators interviewed about these efforts believe that to teach learners to understand and share feelings is very likely to help prevent alcohol, tobacco and/or other drug use problems. Again, coordinators point out that no strategy used alone will be effective, but they clearly believe that this strategy is a key component. Rarely evaluated directly by schools, this strategy is strongly supported by administrators and chemical health coordinators. Parental support is generally present although approximately one-third of coordinators interviewed identified a small minority of parents who believe feelings are not an appropriate topic for school discussion.

Most coordinators believe that teachers are adequately trained to teach this strategy and appropriate reinforcing booster experiences are offered. More than half believe that more time should be spent implementing this strategy and further believe that it is above average in terms of benefits for costs.

### Strategy #9 Helping Students Identify Their Skills, Talents and Special Abilities

*Helping students discuss "what is special about me" in terms of abilities, interests, capacities, and skills.*

This strategy is used in most districts and is connected to a variety of subject areas including career development programs. The strategy is only rarely evaluated to determine effectiveness, but all chemical health coordinators interviewed about these efforts believed that they are effective in preventing alcohol, tobacco and other drug use problems. Generally, coordinators commented that this strategy increases self awareness, involvement in activities students enjoy, and feelings of success.

As is true of many other strategies examined, coordinators report that this strategy needs to be implemented in conjunction with other prevention efforts.

This strategy is generally supported by administrators, faculty and parents. It is perceived to be slightly better than average in terms of benefits for costs of programming.

It is recommended that this strategy could be a useful prevention tool in the high school years when youth are most likely to focus on the future. However, as shown in Figure 4, high schools do not give this strategy concerted attention.

### Strategy #10 Chemical Use Devalued: Being Chemically Free Valued

*Helping students place personal value on not using alcohol, tobacco, and other drugs.*

Efforts to support the value of being chemically free are taking place to some degree in almost every district included in this project. Although the number of hours devoted to this attitude are limited (Figure 4), most coordinators describe some specific activities operating in their school district. As one coordinator reports, "This is one of the many puzzle pieces." Chemically free parties after sports events, bans on sale of tobacco through vending machine, curricular activities through health education classes and commercially

available prevention programs, stress management programs and efforts with sports teams are all examples of how this strategy is implemented in Minnesota schools. Coordinators believe this strategy to be important and effective in preventing problems.

This strategy receives strong support from administrators, faculty, and most parents. However, approximately 20 percent of coordinators interviewed identify that a small percentage of parents in their communities do not support the value of being chemically free and in some cases purchase alcohol for adolescents. Approximately ten percent report concerns from some parents that it is inappropriate for schools to teach values.

This strategy is believed to be significantly better than average in terms of benefit for costs.

### Strategy #11 Developing Prosocial or Caring Values

> *Nurturing in students a compassion or concern for the welfare of other people.*

Developing prosocial or caring values seems to be a high priority in the early primary grades (Figure 4). In a majority of school districts this strategy is integrated into specific subject areas, but more so than any other strategy, helping students develop prosocial values is reported to be infused into the teaching-learning process in many subtle ways. With one exception, coordinators report strong administrative, faculty and parental support for this strategy. All coordinators believe this strategy has a positive impact on learners and is likely to be helpful in preventing alcohol, tobacco, and other drug use problems.

This strategy is perceived to be a better than average use of resources for benefits resulting from efforts to develop these values in learners.

### Strategy #12 Developing Educational Commitment and Aspirations

*Helping students to care about doing well in school; helping students work up to their abilities; increasing achievement motivation; preventing school drop-out; teaching the importance of education.*

This strategy is part of the mission of all schools. It is used in some way throughout the K-12 span of time most learners are in school. Approximately 25 percent of coordinators interviewed responded that this strategy seemed general and not specific to prevention. This strategy seemed to present some difficulty for coordinators interviewed because of its general nature. Somewhat surprisingly, in light of the research data supporting the relationship between educational aspirations and alcohol, tobacco, and other drug use, 25 percent of coordinators did not expect this strategy to be helpful in preventing alcohol, tobacco, and other drug use problems.

This strategy is believed to be supported by administrators, faculty and parents. It is considered to be about average in terms of cost benefit ratio.

Given the strength of the potential effect on alcohol, tobacco, and other drug use, this strategy warrants further attention.

## Strategies 13-17: Promoting Positive School Climate

Figure 5 shows the percentage of public schools employing each of these five strategies. In addition, Figure 5 displays principals' evaluations of the effectiveness of each strategy.

Each of the five strategies appears to be utilized in the vast majority of schools, ranging from a low of 78 percent (youth service) to a high of 95 percent (rules and policies). In terms of perceived effectiveness, rules and policies (strategy 13) receive the highest ratings, with strategies 14 (non-use norm) and 16 (co-curricular activities) rated nearly as well. The two receiving more modest ratings are strategies 15 (caring community) and 17 (youth

# Figure 5: Utilization of School Climate Strategies in Minnesota Public Schools

| Strategy | Does school use this strategy? | | | If yes, how effective is the strategy for preventing chemical use? | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Yes (%) | No (%) | Don't know (%) | Poor (%) | Fair (%) | Good (%) | Very good (%) | Excellent (%) | Don't know (%) |
| School has clear alcohol, tobacco, and other drug rules and policies | 95 | 5 | 1 | 2 | 8 | 17 | 30 | 42 | 2 |
| Non-use of chemicals is a visible, shared, and reinforced norm at school | 88 | 10 | 2 | 4 | 11 | 20 | 26 | 37 | 3 |
| School emphasizes building caring community among students and teachers | 92 | 6 | 2 | 0 | 16 | 31 | 25 | 26 | 3 |
| School promotes involvement of students in co-curricular, adult-led, structured activities | 89 | 9 | 2 | 0 | 14 | 24 | 26 | 35 | 1 |
| School places emphasis on involving students in youth service projects | 78 | 18 | 4 | 1 | 23 | 33 | 26 | 12 | 4 |

service). It should be noted that it is unclear how well strategies 13-17 are actually in place in Minnesota schools. Hence, the effectiveness ratings could be a function of the quality of the school effort to implement the strategy as much as they are objective ratings of the power of each strategy.

Specific findings for each strategy are as follows:

### Strategies # 13, 14, and 15 Creating Caring Community, Shared Norms, and Rules and Policies

Most principals report emphasizing school climate characteristics that are associated with low rates of alcohol, tobacco and other drug use. Ninety-five percent believe that their schools have established and implemented clear policies and rules about alcohol, tobacco and other drug use. Seventy-two percent rate the effectiveness of rules and policies as very good or excellent.

Related to policies and rules are efforts to establish and reinforce the norm of non-use of alcohol, tobacco and other drugs. Eighty-eight percent report emphasizing this norm and sixty-three percent believe the effectiveness of this effort to be very good or excellent. Tobacco free school policies, posters, chemically free events and involvement in Alliance for Drug Free Communities contest activities are examples of this strategy.

Ninety-two percent of the principals surveyed report an emphasis on building a caring community among students and teachers. Fifty-one percent believe that the effectiveness of this emphasis is very good or excellent.

Coordinators' comments suggest that while a caring school community is a goal, there is still work to be done to achieve this goal. Given the theoretical value of student perception of a caring school community, this strategy warrants attention and emphasis.

### Strategy #16 School Places Particular Emphasis on Getting Students Involved in Co-curricular, Adult-led, Structured Activities

*Includes sports, band, orchestra, choral music, clubs and organizations.*

Eighty-nine percent of principals report that involvement in structured youth activities is emphasized in their schools. Sixty-one percent of those principals believe the effectiveness of this strategy is very good or excellent.

Coordinators' comments point out that student activities coordinated by the Minnesota State High School League (MSHSL) offer a good opportunity to integrate prevention messages for learners and their parents into those activities. In addition to MSHSL sponsored activities, 4H, Junior Achievement and SADD were organized youth activities identified in interviews.

This strategy is often used in Minnesota schools and is a promising prevention tool when integrated with other efforts.

### Strategy #17 School Places Emphasis on Involving Students in Youth Service Projects

*Includes voluntary or required programs to involve students in helping people in the community; also called service learning*

Seventy-eight percent of principals report that schools emphasize involving students in youth service projects. Thirty-eight percent of those principals believe the effectiveness of this strategy is very good or excellent.

Two of the most often identified volunteer activities by learners were involvement in SADD or Safe Ride Programs. Approximately 70 percent of coordinators interviewed about these activities report a SADD or similar program in operation in their school or community.

This strategy requires close collaboration with sectors of the community outside of the school. Service projects are promising approaches to prevention and warrant greater attention and consideration in community based prevention efforts.

The success of school-based prevention efforts is influenced by a variety of implementation factors including theoretical foundation, translation of theory into goals, clarity of goals, fidelity of program implementation, credibility of leaders, appropriateness of activities to age and development of learners, and booster efforts (Vegega & Klitzner, 1986; Botvin, 1990; Kumpfer, 1989).

Specifically, booster programs have been shown to be important for the impact of prevention strategies, and peer leaders seem to be effective in implementing some programs (Botvin, et al., 1990).

Conversely, the negative results of some studies may be attributable to difficulties in program implementation resulting from lack of compliance to program goals and/or strategies by teachers (Kishchuk, et al., 1990).

Changing the normative climate of a school requires teachers and staff who share common goals and commitment to responding to student problems and prevention of those problems (Griffin and Svendsen, 1986). In addition, teacher training is an essential element of effective implementation of prevention curricula (Glynn, 1989). Extensive teacher training has been suggested as a method to increase commitment to prevention, skills, and confidence (Botvin, 1990).

The utilization of four factors known to influence the effectiveness of school curriculum strategies are presented in Figure 6.

Three of the four factors decline in frequency after grade 6. These are teacher training, monitoring, and boosters. The use of boosters falls to 33 percent in grades 11 and 12. It

## Figure 6: Utilization of Four Factors Influencing School-Based Prevention Efforts
### (Percent of schools employing factor in each grade)

| Factor | Grade (%) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Teachers who teach prevention curricula receive formal training | 61 | 63 | 66 | 76 | 75 | 84 | 79 | 75 | 74 | 56 | 79 | 40 | 36 |
| Students/peers do some or all of the teaching/leading | 24 | 24 | 32 | 29 | 44 | 75 | 71 | 57 | 49 | 40 | 64 | 56 | 49 |
| Teacher/leader are monitored to see if curriculum is taught appropriately | 61 | 56 | 59 | 61 | 64 | 64 | 69 | 55 | 51 | 40 | 57 | 33 | 33 |
| Boosters are provided to reinforce conception messages taught earlier | 44 | 55 | 60 | 67 | 64 | 64 | 58 | 55 | 49 | 36 | 47 | 33 | 33 |

would be a cost-effective strategy to provide such boosters during the high school years, building on and reinforcing messages given in earlier grades. To do so requires close coordination across schools within a district.

The use of peer leaders peaks in grades 5 and 6. Given the power of this approach and the particular susceptibility of adolescents to peer influence, it would seem wise for Minnesota schools to develop additional peer-led prevention efforts during the junior and senior high years. Only about one-half of schools use peer leaders in a significant way between grades 7 and 12.

## Strategies 18-20: Empowering Parents

### Strategy #18 School Places Emphasis on Helping Parents Develop a Commitment to Play a Primary Prevention Role With Their Children

As shown in Figure 7, 83 percent of principals report use of this strategy. However, only 15 percent of parents, on the average, are reached by this effort.

## Figure 7: Utilizing of Strategies Designed to Empower Parents

| Strategy | Percent (%) of Schools Using Strategy | Average Percent (%) of Parents Who Participate | Average Number of Hours Participating Parents Are Involved |
|---|---|---|---|
| School places emphasis on helping parents develop a commitment to play a primary prevention role with their children | 83 | 15 | 5 |
| School teaches parents how to establish rules, standards, and effective discipline regarding chemical use | 79 | 12 | 4 |
| School teaches parents how to support, nurture, and affirm children | 76 | 11 | 5 |

### Strategy #19 School Teaches Parents How to Establish Rules, Standards, and Effective Discipline Regarding Chemical Use

Seventy-nine percent of schools use this strategy, with only 12 percent of parents, on the average, participating.

### Strategy #20 School Teaches Parents How to Support, Nurture, and Affirm Children

Seventy-six percent of schools have programs aimed at teaching support and caring skills. However, only 11 percent of parents, on the average, avail themselves of this opportunity.

The importance of involving parents in the prevention of alcohol and other drug use problems is strongly supported by prevention research. The good news is that most schools try to influence the commitment and skills of parents. The reality is, however, that it is extremely difficult to involve parents. Of all the strategies surveyed in this study, these three are clearly the most problematic and the most in need of innovative approaches.

## Strategies 21-26: Mobilizing Communities

Figure 8 portrays the extent to which six community strategies are in place. Each of these is particularly crucial, since it is becoming increasingly clear that prevention efforts are much more effective when multiple sectors of a community collaborate with schools in planning, monitoring, and delivering prevention services.

Seventy-one percent of principals report that a community prevention task force is in place that represents many sectors of the community. In 64 percent of those communities, the principals rate the effectiveness of the task force as good to excellent. Similarly, 73 percent of the principals report collection and use of data to plan and evaluate program efforts and more than 80 percent of principals rate the effectiveness of this data collection and use as good to excellent.

Clearly, community-based prevention efforts are taking place in many communities throughout Minnesota and are being perceived very positively by school administrators.

However, a closer examination of the item "community puts emphasis on changing adult alcohol, tobacco, and other drug attitudes and behaviors" raises a major concern. Forty-one percent of the principals report that their communities are involved in efforts to change adult attitudes and behaviors and 48 percent of those principals believe the effectiveness of these efforts are only fair or poor. One of the most common obstacles to effective school based prevention strategies identified by chemical health coordinators is community attitudes and norms about alcohol, tobacco, and/or other drugs. It is also important to note that 28 percent of the principals report only fair to poor effectiveness of community efforts to provide consistent and frequent messages discouraging alcohol, tobacco and other drug use.

Another area of concern surfaces with the response to the item "community considers ethnic/racial factors in creating its prevention strategies." Thirty-one percent of principals believed this to be happening in their communities. Thirty-seven percent rated these efforts

# Figure 8: Utilization of Community Mobilization Strategies

| Strategy | Does community use this strategy? | | | If yes, how effective is the strategy for preventing chemical use? | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Yes (%) | No (%) | Don't know (%) | Poor (%) | Fair (%) | Good (%) | Very good (%) | Excellent (%) | Don't know (%) |
| Establish a community-based prevention task force | 71 | 22 | 7 | 2 | 30 | 26 | 19 | 19 | 3 |
| Collect community data to monitor trends in alcohol and other drug use | 73 | 19 | 8 | 1 | 15 | 36 | 23 | 25 | 0 |
| Pay attention to racial/ ethnic factors in creating prevention strategies | 36 | 37 | 27 | 5 | 32 | 32 | 9 | 21 | 2 |
| Use data to plan, evaluate, and modify prevention efforts | 74 | 18 | 8 | 0 | 16 | 35 | 20 | 25 | 5 |
| Provide consistent and frequent messages discouraging use | 70 | 27 | 3 | 5 | 23 | 34 | 12 | 20 | 7 |
| Place emphasis on changing adult alcohol, tobacco, and other drug use attitudes and behaviors | 41 | 44 | 15 | 15 | 33 | 17 | 14 | 17 | 4 |

fair to poor, 32 percent good and 30 percent very good to excellent. The relative ethnic and racial homogeneity of Minnesota is no doubt a factor influencing these responses, yet the findings regarding the perceived effectiveness of these efforts warrant further attention to consideration of these factors in planning and implementing prevention strategies.

The interviews with coordinators yielded insight into the use communities make of the recent Minnesota Student Survey. Thirty-two (or 51%) of 63 districts report using the data from the Minnesota Student Survey to identify needs, plan programs, and program evaluation specific to their communities; four districts report using the information from the Minnesota Student Survey primarily for increasing community awareness of problems; an additional four school districts used the data primarily for evaluation purposes; and six districts are using the information but provided ambiguous answers that were difficult to categorize. Two districts did not respond to the question, and 15 districts of the 63 reported that they are not using the information in their districts.

# Implications and Recommendations

# Implications and Recommendations

In this final chapter, we pinpoint recommendations shaped by data collected in this study. These recommendations are designed to assist Minnesota school districts in their ongoing efforts to promote and enable effective prevention efforts.

1. *Connect strategies to student alcohol, tobacco, and other drug use*

   Minnesota has an opportunity to conduct a highly useful study of how district-level utilization of the 26 strategies advocated in this report is related to actual student use rates. This could be done quite efficiently by connecting data collected in this study with data from the first replication of the Minnesota Student Survey. Such a project could identify which combination of strategies has the greatest impact on preventing use.

2. *Develop an "age-appropriate" model*

   Figure 4 of this report shows how the 12 student strategies are utilized within each grade in school. The distribution of these strategies raises questions about whether it provides a "best fit" with the developmental needs of students. An ideal "age-appropriate" distribution of these strategies should be designed and communicated to local school districts. It should build on the recent scope and sequence paper (Minnesota School Health Education 110 Program) prepared by the Minnesota Department of Education Curriculum Services Division.

3. *Provide technical assistance for local evaluation of prevention programming*

   In many cases, school district self-evaluations of prevention programming are non-existent or superficial. Tools are needed to assist districts in collecting both qualitative and quantitative data. The Minnesota Chemical Abuse Prevention Resource Council

should consider developing tools to assist local school districts in launching process and outcome evaluations.

4. *Readminister the Minnesota Student Survey every three years*

Prevention program evaluations will be greatly facilitated by periodic replication of the Minnesota Student Survey. This replication, which has occurred at no cost to school districts, has several other key advantages. It can provide comparison data across school districts, and it can generate additional knowledge about social and family factors associated with non-use. More detailed analysis of change over time in selected areas where specific efforts have been implemented can provide helpful information regarding the effectiveness of specific strategies.

5. *Developing an expanded monograph in language and format which encourages school districts to discuss and utilize the 26 strategies*

Staff in most school districts do not regularly design or plan prevention efforts with the 26 promising strategies in mind. It would be beneficial to commission a practical, "how-to" guide which describes the 26 strategies and provides worksheets, workshop processes, and planning guides to encourage local utilization of the strategies. This comprehensive report could then be disseminated to staff in all school districts and to all private schools in Minnesota.

6. *Clarify the role of chemical health coordinators*

This project made contact with point persons in each district who have been designated by local administrators to serve as local chemical health coordinators. Some of the 64 coordinators did not know they had been so chosen, and many are unclear of their role. Given the potential power and importance of their position, additional training is warranted.

7. *Promote community based prevention strategies designed to improve community norms regarding alcohol, tobacco and other drug use.*

Some of the most promising prevention strategies seem to be underutilized in communities throughout the state. In addition, community attitudes and standards regarding alcohol, tobacco and other drug use are identified as an obstacle to effective programs in school by a significant number of participating schools. The Minnesota Department of Education should continue to collaborate with other state agencies to ensure interaction between schools and other sectors of the community.

8. *Increase prevention efforts for learners in grades 11 and 12*

Regardless of the importance of early prevention efforts, older learners in schools are continuing to face pressures and opportunities to use alcohol, tobacco and other drugs. In fact, alcohol use increases even after learners complete grade 12, especially for those who continue in post secondary education. Learners in grades 11 and 12 are apparently being supported by efforts of SADD Chapters in some communities and through special efforts connected with participation in athletics and other extracurricular activities in others. However, focused strategies in the classroom may be helpful to a large number of learners who are making choices about alcohol, tobacco and other drugs on a regular basis. In addition, other sectors of the community have opportunities and responsibilities to offer prevention strategies through religious organizations, youth programs, support of alcohol and other drug free events by civic and business organizations, and specialized programs through youth service agencies.

9. *Promote utilization of value development strategies*

Some of the most underutilized strategies fall into the category of values (e.g., value on being chemically-free, prosocial values, educational commitment). With the resurgence of public school interest in values, support and resources in this area would be timely

and beneficial. Dialogue with parent groups to ascertain sensitivities about values education would be key.

*10. Promote utilization of boosters*

Short-term programming efforts to remind older students of lessons learned earlier is an underutilized strategy. These efforts are commonly called "boosters" in the prevention literature. Local districts should develop and utilize "boosters" for use particularly in senior high schools to improve prevention efforts.

*11 Promote utilization of peer leaders/educators*

This technique has recently received highly favorable evaluations, as indicated in the previous two chapters. Training students and school staff in this methodology is recommended. Peer leadership programs are offered through a variety of community education programs and community agencies and should be expanded as a prevention strategy.

*12. Develop innovative strategies to involve parents*

Prevention throughout the state would be greatly enhanced if school-based programming aimed at parents reached a greater percentage of parents. Systems of resources and incentives to make parent education more effective are helpful. The development of printed resources and training will better enable schools to reach parents.

13. *Develop and evaluate new approaches to reach those students at highest risk of alcohol and other drug problems.*

Students who have experienced violence and abuse in their homes, or whose parents abuse alcohol or drugs, are at increased risk for developing alcohol and other drug problems. It is not yet know whether approaches designed to prevent problems among general student populations are effective with these adolescents. Antisocial behaviors are the strongest predictors of alcohol and other drug abuse among young people. Through acts of vandalism, stealing, and fighting many young people at high risk for alcohol and other drug abuse come to the attention of school authorities. Because many of these youngsters may be undeterred by the dangers and consequences associated with alcohol and other drug use, innovative responses may need to be developed.

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